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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

International application No. PCT/GB2005/000686 1. International application No. PCT/GB2005/000686 1. International Patent Classification (IPC) or national classification and IPC INV. F02M27/04 F02M31/125 F02M31/14 Applicant COLLINS, Paul Antony 1. This report is the international preliminary examination report, established by this international Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This report is also accompanied by ANNEXES, comprising: a. So and to the applicant and to the International Bureau and the International Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). Sheets of the description, claims another drawings which have been amended and are the basis of this report and/or sheets containing recilifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). Is beets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in celectronic from only, as indicated in the Supplemental Box Relating to Sequence Listing in international application and explanations and explanations supporting such statement Box No. II Priority Box No. IV Leak of unity of invention Box No. VI Certain declects in the international application Box No. VII Certain declects in the international application Date of submission of the demand Date of completion of this report 10.04.2006 Name and mailing address of the international preliminary examining authority. Pays Bas Incl. 431 70 340-3908	Applicant's or agent's file	e reference FC	OR FURTHER ACTION	See Form PCT/PEA/416		
PCTGB2005,000686 24.02.2005 26.02.2004 International Patent Classification (IPC) or national classification and IPC INV. F02M27/04 F02M31/125 F02M31/14 Applicant COLLINS, Paul Antony 1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 5 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. sent to the applicant and to the International Bureau a total of 6 sheets, as follows:						
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IAP12 Rec'd PCT/PTO 23 AUG 2006

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2005/000686

_	Box No. I Basis of the repor	t
1.	is report is based on the international application in the language in which it was I under this item.	
	This report is based on tran which is the language of a t	nslations from the original language into the following language, it
	☐ international search (und☐ publication of the international preliminary	der Rules 12.3 and 23.1(b)) ational application (under Rule 12.4) examination (under Rules 55.2 and/or 55.3)
2. With regard to the elements* of the international application, this report is bas have been furnished to the receiving Office in response to an invitation under report as "originally filed" and are not annexed to this report):		iving Office in response to an invitation under Article 14 are referred to in this
	Description, Pages	
	1, 4-8	as originally filed
	2, 3	received on 20.09.2005 with letter of 20.09.2005
	Claims, Numbers	
	1-15	received on 20.09.2005 with letter of 20.09.2005
	Drawings, Sheets	
	1/2, 2/2	as originally filed
	☐ a sequence listing and/or an	ny related table(s) - see Supplemental Box Relating to Sequence Listing
3.	☐ The amendments have result the description, pages ☐ the claims, Nos. ☐ the drawings, sheets/figs ☐ the sequence listing (specific page)	
	any table(s) related to se	equence listing (specify):
4.	Supplemental Box (Rule 70.2(c))	shed as if (some of) the amendments annexed to this report and listed below have been considered to go beyond the disclosure as filed, as indicated in the).
	 □ the description, pages □ the claims, Nos. □ the drawings, sheets/figs □ the sequence listing (spe □ any table(s) related to se 	ecify):
		me or all of these sheets may be marked "superseded "

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No. PCT/GB2005/000686

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

1-15

No: Claims

Inventive step (IS)

Yes: Claims

1-15

No: Claims

Industrial applicability (IA)

Yes: Claims

1-15

No: Claims

2. Citations and explanations (Rule 70.7):

see separate sheet

- 1. The following document is referred to in this communication: D1: WO-A-03/072925
- 2. Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document):

An apparatus for conditioning air and fuel supplied to a combustor, comprising: means (fig. 1) for electrostatically charging air supplied to a combustor, at a first polarity, the means extending into a first duct (2) through which in use air flows to the combustor;

and means (fig.2) for electrostatically charging fuel supplied to such combustor, at opposite polarity to said first polarity, the means extending into a second duct (9) through which in use fuel flows to the combustor.

(see page 2, line 21- page 3, line 16; figures 1,2)

From this the subject matter of the independent claim 1 differs in that:

the apparatus according to the invention also contains means for preheating the fuel and an earted electrode within one of the ducts.

The subject-matter of the device claim 1 and the corresponding method claim 14 is therefore novel (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as how to improve the combustibility of the air fuel mixture.

The solution to this problem i.e. the means for preheating the fuel in combination with the earted electrode within one of the ducts of the present application is considered as involving an inventive step, because such a configuration is not known from, nor rendered obvious by the available prior art.

The subject-matter of the device claim 1 and the corresponding method claim 14 is therefore also inventive (Article 33(3) PCT).

 Claims 2-11 are dependent on claim 1 and claim 15 is dependent on claim 14 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (SEPARATE SHEET)

International application No.

PCT/GB2005/000686